AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Previously Presented): A method of producing a biologically active oligomeric form of α-lactalbumin, which method comprises contacting α-lactalbumin, which is in the molten globule-like state, with a conversion reagent selected from the group consisting of fatty acids and lipids, wherein said fatty acids and lipids are found in a milk fraction containing casein obtained from human milk, wherein said method results in the production of said biologically active oligomeric form of α-lactalbumin.

Claim 2 (Previously Presented): A method according to claim 1 wherein α-lactalbumin in the molten globule-like state is contacted with the conversion reagent in the presence of an ion exchange medium.

Claim 3 (Previously Presented): A method according to claim 1 wherein α-lactalbumin in the molten globule-like state is applied to an ion exchange column, which contains the conversion reagent.

Claim 4 (Previously Presented): A method according to claim 2 wherein the ion exchange medium is an anion exchange medium.

Claim 5 (Previously Presented): A method according to claim 3 wherein the ion exchange column has been eluted with the conversion reagent.

Claim 6 (Previously Presented): A method according to claim 1 wherein at least 50% w/w of the α-lactalbumin is in the molten globule-like state.

Claim 7 (Previously Presented): A method according to claim 6 wherein the α-lactalbumin is subjected to a pretreatment step in which the amount of molten globule-like material present is maximized.

Claim 8 (Previously Presented): A method according to claim 7 wherein the pretreatment step comprises contacting the α-lactalbumin with a calcium chelating agent.

Claim 9 (Original): A method according to claim 8 wherein the calcium chelating agent is ethylene diamine tetraacetic acid.

Claim 10 (Previously Presented): A method according to claim 7 wherein the pretreatment step comprises exposing the α-lactalbumin to a pH of 2.

Claim 11 (Previously Presented): A method according to claim 10 wherein hydrochloric acid is added to a pH of 2.

Claim 12 (Previously Presented): A method according to claim 8 wherein the pretreatment step comprises heating the α-lactalbumin to a temperature in excess of 25°C up to 120°C.

Claim 13 (Original): A method according to claim 12 wherein the temperature is from 70°C to 120°C.

Claim 14 (Previously Presented) A method according to claim 1 wherein α-lactalbumin is contacted with the conversion agent on an ion exchange column, and wherein α-lactalbumin is applied to the column together with a molten globule inducing reagent, which will induce α-lactalbumin to form the molten globule-like state.

Claim 15 (Previously Presented): A method according to claim 14 wherein the molten globule inducing reagent is a calcium chelating agent present in the elution buffer.

Claim 16 (Previously Presented): A method according to claim 15 wherein the calcium chelating agent is ethylene diamine tetraacetic acid (EDTA).

Claims 17-18 (Canceled).

Claim 19 (Previously Presented): A method according to claim 1 wherein the fatty acid is oleic acid.

Claim 20 (Previously Presented): A method according to claim 1 wherein calcium-binding sites in the α-lactalbumin have been inactivated.

Claim 21 (Currently Amended): A method according to claim 20 wherein a cysteine residue of the α-lactalbumin is mutated to another amino acid so as to ~~inactive~~ inactivate a calcium-binding site.

Claim 22 (Previously Presented): A method for producing an oligomeric form of α-lactalbumin which comprises exposing a source of α-lactalbumin to an ion exchange medium which has been pretreated with a milk fraction containing casein obtained from human milk, or a member selected from the group consisting of fatty acids and lipids found in a casein containing fraction obtainable from human milk, and recovering α-lactalbumin in an oligomeric form therefrom.

Claim 23 (Original): A method according to claim 22 wherein the active component of casein is oleic acid.

Claim 24 (Previously Presented): A method according to claim 23 wherein the oleic acid is in a purified form.

Claim 25 (Previously Presented): A method according to claim 22 wherein the ion exchange medium has been treated with a milk fraction containing casein obtained from human milk.

Claim 26 (Previously Presented): A method according to claim 25 wherein the ion exchange medium has been treated with a milk fraction containing casein obtained from human milk which fraction has been previously frozen, or a milk fraction containing casein which fraction has been derived from frozen human milk.

Claim 27 (Original): A method according to claim 25 or claim 26 wherein the casein used in the pretreatment of the ion exchange medium has been subjected to hydrolysis.

Claim 28 (Previously Presented): A method according to claim 22 wherein the α-lactalbumin applied to the ion exchange medium is in the molten globule-like state.

Claim 29 (Original): A method according to claim 28 wherein the α-lactalbumin is formed into the molten globule-like state by contacting it with a calcium chelating agent.

Claim 30 (Original): A method according to claim 29 wherein the calcium chelating agent is ethylene diamine tetraacetic acid.

Claim 31 (Previously Presented): A method according to claim 29 or claim 30 wherein the calcium chelating agent contacts the α-lactalbumin prior to contact with the ion exchange medium.

Claim 32 (Previously Presented): A method according to claim 30 wherein an elution buffer containing the calcium chelating agent and α-lactalbumin is contacted with the ion exchange medium.

Claim 33 (Previously Presented): A method according to claim 26 wherein the α-lactalbumin is subjected to a pretreatment step involving exposure to a low pH of the order of 2.

Claim 34 (Previously Presented): A method according to claim 26 wherein the α-lactalbumin is subjected to a pretreatment in which it is heated to a temperature in excess of 25°C up to 120°C.

Claim 35 (Previously Presented): A method according to any one of claims 28 to 30 and 32 to 34 wherein the ion exchange medium is arranged in a column.

Claim 36 (Previously Presented): A method according to claim 28 wherein the ion exchange medium comprises Diethylaminoethanol (DEAE) TRISacryl.

Claim 37 (Previously Presented): A method according to claim 28 which comprises passing a milk fraction containing casein obtained from human milk or one or more members selected from the group consisting of fatty acids or lipids found in a casein containing fraction obtainable from human milk, in an ion exchange buffer along an ion exchange column, washing the column with ion exchange buffer, and then passing a source of α-lactalbumin dissolved in the ion exchange buffer along the ion exchange column in the presence of a salt concentration gradient.

Claim 38 (Previously Presented): A method according to claim 37 wherein the ion exchange buffer is TRIS (hydroxmethyl) aminomethane hydrochloride

Claim 39 (Previously Presented): A method according to claim 37 or claim 38 wherein said salt concentration gradient is produced using an ion exchange buffer in which sodium chloride is dissolved.

Claim 40 (Original): A method according to claim 39 wherein the column is washed by elution of ion exchange buffer twice.

Claim 41 (Previously Presented): A method according to claim 1 wherein the α-lactalbumin comprises monomeric bovine α-lactalbumin.

Claim 42 (Previously Presented): A method according to claim 1 wherein the α-lactalbumin comprises monomeric human α-lactalbumin.

Claim 43 (Currently Amended): An ion exchange medium for use in the method of ~~any one of the preceding claims~~ claim 1 or claim 22 said medium having been treated with a milk fraction containing casein obtained from human milk or a member selected from the group consisting of fatty acids or lipids found in a casein containing fraction obtainable from human milk.

Claim 44 (Previously Presented): An ion exchange medium according to claim 43 wherein the medium has been treated with an active component of casein containing milk fraction comprising oleic acid.

Claim 45 (Currently Amended): An ion exchange column which comprises an ion exchange medium as defined in ~~any one of claims~~ claim 43.

Claim 46 (Previously Presented): A biologically active oligomeric form of α-lactalbumin obtained by contacting α-lactalbumin in the molten globule-like state, with a conversion reagent selected from the group consisting of fatty acids or lipids, wherein said fatty acids and lipids are found in a milk fraction containing casein obtained from human milk.

Claim 47 (Previously Presented): A method according to claim 20 wherein the calcium binding site is destroyed.

Claim 48 (Previously Presented): A biologically active oligomeric form of non-human α-lactalbumin, obtainable by contacting α-lactalbumin in the molten globule-like state, with a conversion reagent selected from the group consisting of fatty acids or lipids, wherein said fatty acids and lipids are found in a milk fraction containing casein obtained from human milk.

Claim 49 (Previously Presented): A biologically active oligomeric form of α-lactalbumin according to claim 48, wherein the α-lactalbumin is bovine α-lactalbumin.

Claim 50 (Previously Presented): A biologically active complex comprising an α-lactalbumin in which calcium binding sites or domains are inactive, and a conversion agent selected from the group consisting of fatty acids or lipids, wherein said fatty acids and lipids are found in a milk fraction containing casein obtained from human milk.

Claim 51 (Previously Presented): A biologically active complex according to claim 50 wherein the conversion agent is oleic acid.